#14 B
DB
9/19/02

Docket Number: 2572-1-001N2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: L. Kathryn Durham

Serial No.: 09/826,290 Examiner: Chernyshev, Olga N.

Filed : 03 April 2001 Art Unit: 1646

For: Nucleic Acid Molecules, Polypeptides and Uses Therefor, Including Diagnosis and Treatment of Alzheimer's Disease

Certificate of Mailing Under 37 CFR 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to ASSISTANT COMMISSIONER FOR PATENTS, WASHINGTON, D.C. 20231 on 8/21, 2002.

Anne M. Jones
(Name of Depositor)

Anne M. Jones 8/21/02.
(Signature and Date)

RESPONSE TO RESTRICTION REQUIREMENT

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, DC 20231

Sir:

In response to the Restriction action dated 28 June 2001, please cancel claims 1-50, without waiver or prejudice, and add the following new claims 51-71:

51. (New) A method for screening, diagnosis or prognosis of Alzheimer's disease in a subject, for determining the stage or severity of Alzheimer's disease in a subject, for identifying a subject at risk of developing Alzheimer's disease, or for monitoring the effect of therapy administered to a subject having Alzheimer's disease, the method comprising detecting, in a biological sample from the subject, at least one Alzheimer's disease-Associated Protein Isoform (API) that

B1

corresponds to Accession No. O15179.

52. (New) The method of claim 51, wherein the API is at least one of API-3, API-6, API-47, API-58, API-145, and API-239.

53. (New) The method of claim 51, wherein the biological sample is cerebrospinal fluid.

54. (New) The method of claim 51, wherein the API is quantitatively detected.

55. (New) The method of claim 54, wherein the quantitatively detected API is compared to a previously determined reference range or control.

56. (New) The method of claim 51, wherein the method comprises:

a) analyzing the biological sample by two dimensional electrophoresis to generate a two-dimensional array of APIs; and

b) comparing the abundance of each chosen API in the test sample with the abundance of that chosen API in biological sample from one or more persons free from Alzheimer's disease, or with a previously determined reference range for that feature in subjects free from Alzheimer's disease, or with the abundance at least one Expression Reference Feature (ERF) in the test sample.

57. (New) The method of claim 56, wherein the biological sample is cerebrospinal fluid.

58. (New) A method for screening, diagnosis, or prognosis of Alzheimer's disease in a subject for determining the stage or severity of Alzheimer's disease in a subject, for identifying a subject at risk of developing Alzheimer's disease or for monitoring the effect of therapy administered to a subject having Alzheimer's disease, the method comprising quantitatively detecting, in a biological sample, Alzheimer's disease-Associated Protein-145 (API-145), wherein an increased

level of API-145, relative to a control sample or a reference range, indicates the presence or degree of Alzheimer's disease or a subject at risk of developing Alzheimer's disease.

59. (New) A method for screening, diagnosis, or prognosis of Alzheimer's disease in a subject, determining the stage or severity of Alzheimer's disease in a subject, identifying a subject at risk of developing Alzheimer's disease, or monitoring the effect of therapy administer to a subject having Alzheimer's disease, the method comprising quantitatively detecting, in a biological sample, at least one of the Alzheimer's disease-Associated Protein Isoforms (APIs): API-3, API-6, API-47, API-58, API-239, wherein a decreased level of said API(s), relative to a control sample or a reference range, indicates the presence or degree of Alzheimer's disease or a subject at risk of developing Alzheimer's disease.

60. (New) The method of claim 51, wherein the step of detecting comprises:

(a) contacting the sample with a capture reagent that is specific for a pre-selected API; and

(b) detecting whether binding has occurred between the capture reagent and at least one API in the sample.

61. (New) The method of claim 60, wherein step (b) comprises detecting the captured API using a directly or indirectly labeled detection reagent.

62. (New) The method of claim 60, wherein the biological sample is cerebrospinal fluid.

63. (New) The method of claim 60, wherein the capture reagent recognizes a post translational component part of the API which distinguishes the API from other members of the gene family.

64. (New) The method of claim 60, wherein the capture reagent is an antibody.

65. (New) The method of claim 64, wherein the antibody is a monoclonal antibody.

66. (New) The method of claim 60, wherein the capture reagent is conjugated to a detectable label.

67. (New) The method of claim 60, wherein the capture reagent is immobilized on a solid phase.

68. (New) A diagnostic kit comprising a capture reagent specific for the protein isoform of claim 51, reagents and instructions for use.

69. (New) The kit of claim 68, comprising a plurality of capture reagents specific for a plurality of APIs.

70. (New) The kit of claim 68, wherein the capture reagent is an antibody.

71. (New) The kit of claim 70, wherein the antibody is monoclonal.